

U-77786

m/043/012

NEPA CHECKLIST

NEPA TITLE BROWNS CANYON COMMUNITY PT NEPA NUMBER UT-020-2003-78

AUTHOR MIKE FORD

RMP/MFP NAME PARK CITY MFP RMP/MFP DECISION: _____

ACTION:

RECEIVED

JAN 12 2004

1. Draft document routed to staff as appropriate: 6/5/03
2. Final document routed to staff as necessary:

DIV OF OIL GAS & MINING

| RESOURCE | SPECIALIST | DRAFT INIT/DATE | REVIEW FINAL | FINAL INIT/DATE |
|------------------------------------------|---------------------------------------------|--------------------|--------------|-------------------|
| ACEC* | (depends on ACEC) | | | |
| Air Quality* | Ingwell | <u>6/6/03</u> | | <u>6/6/03</u> |
| Cultural* | Naylor / Ainsworth / Hunsaker | <u>27</u> | | <u>24/5/03</u> |
| Environmental Justice* | Stephenson / Nelson | <u>as 6/19</u> | | <u>as 6/19</u> |
| Fire | Kline / T. Rigby | <u>6/6/03</u> | | <u>6/6/03</u> |
| Geology / Minerals | Ford / Martinez | <u>MF 6/5/03</u> | | <u>7/14/03</u> |
| Hazardous/solid Wastes* | Ingwell | <u>6/6/03</u> | | <u>6/6/03</u> |
| Invasive, noxious weed species* | Dragt / Quilter | <u>BD 6/5/03</u> | | <u>BD 6/5/03</u> |
| Lands / Access Prime/Unique Farm Lands * | Nelson / Jensen | <u>MM 6/5</u> | | <u>MM 6/5</u> |
| Nat. Amer. Concerns* | Naylor / Hunsaker | <u>24</u> | | <u>24</u> |
| Plan Conformance | Stephenson / Nelson | <u>as 6/19</u> | | <u>as 6/19</u> |
| Rangelands Standards / Vegetation / Soil | Gates / Heaton / Kidd / Schuller | <u>6/6/03</u> | | <u>6/6/03</u> |
| Recreation / OHV | Laub / P. Christensen / M. Rigby | | | |
| T & E Plants* | Hardy | <u>R VH 6/6/03</u> | | <u>6/6/03 RDM</u> |
| T & E Wildlife* | Swilling | <u>6/6/03</u> | | <u>6/6/03</u> |
| VRM | Laub / Nelson | <u>mu</u> | | <u>mu 6/6/03</u> |
| Water / Water Quality * | Arana | <u>MA - 6/9-03</u> | | <u>6/9/03</u> |
| Watershed / Riparian* / Floodplain* | Schuller | <u>PS 6/6/03</u> | | <u>PS 6/6/03</u> |
| Wild Horse & Burro | Hansen | | | |
| Wildlife / Neo-tropical Birds | Arana / Swilling | <u>6/6/03</u> | | <u>6/6/03</u> |
| WSA* / 202 / UWC | Laub / M. Rigby | | | |
| Operation Support | Wieser / Turner | | | |

* CRITICAL ITEMS, may require negative declaration

4. Environmental Coordinator review final EA, FONSI, Decision Record/Rationale: Signature Alice Stephenson
5. Renewable Resources Mgr. Review: Signature Justin Warrick
- Non-Renewable Resources Mgr. Review: Signature B. O. O.
6. Project stipulations given to workforce/applicant _____

SALT LAKE FIELD OFFICE
2370 South 2300 West
Salt Lake City, Utah 84119

ENVIRONMENTAL ASSESSMENT

EA Number: UT-020-2003-0078

Project Title/Type of Action: American Stone Mine, Browns Canyon

Serial/Lease/Case File Number: U-77786

Land Use Plan: Park City MFP

County: Summit

Applicant: Lon Thomas, American Stone, Inc.. dba Star Stone Quarries, Inc.

Address: 4040 South 300 West
Salt Lake City, Utah, 84119

Date: May 22, 2003

LANDS DESCRIPTION

| TOWNSHIP | RANGE | MERIDIAN | SECTION | SUBDIVISION | ACRES |
|----------|--------|----------|---------|-------------|-------|
| 1 South | 5 East | SLB&M | 20 | SE¼NW¼ | 11.01 |

ENVIRONMENTAL COMPLIANCE: The proposed action has been reviewed and all environmental issues have been considered.

Reviewed by: Alice Stephenson

Signature

Title

Date

**FINDING OF NO SIGNIFICANT IMPACTS
AND
DECISION RECORD
UT-020-2003-0078**

FINDING OF NO SIGNIFICANT IMPACTS: Based on an analysis of the environmental impacts contained in the attached environmental assessment, I have determined that impacts to the human environment are not expected to be significant and an environmental impact statement is not required for the reasons stated below under Rationale.

DECISION: It is my decision to approve Star Stone Quarries' Proposed Action which involves the extraction of mineral materials from split estate lands located in Browns Canyon.

Stipulations:

Stipulations are attached to the Finding Of No Significant Impact And Decision Record as Attachment 1.

RATIONAL:

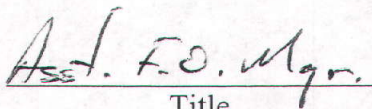
This area has a long history of rock quarry operations. BLM recognizes the need for the operator to expand the existing mineral extraction operation onto adjacent lands in order to produce a mineral material not generally available from the surrounding quarry areas.

The BLM would need to have complete administrative access to the mineral extraction area to conduct monitoring and inspection activities, therefore the operator would be required to interlock a BLM padlock on his main access route into the project area. Provisions need to be made by the operator to ensure this happens.

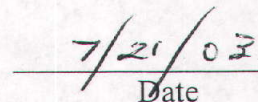
The decision to approve the proposed action, subject to mitigation measures outlined in Attachment 1, will not result in any undue or unnecessary environmental degradation and is in conformance with the Park City Management Framework Plan of 1975 and Plan Maintenance Decision of June 19, 2003. Consultation will not be required under Section 7 of the Endangered Species Act, or under Section 106 with the Utah State Historical Preservation Officer.



Signature



Title



Date

Attachment 1.

Mitigation Measures (Proposed Action, Alternative A):

1. The proponent shall affect a minimum of vegetative and soil disturbance consistent with practical construction operations.
2. For the entire period of use, and for up to five years post operation, the operator would survey and treat noxious weeds. The BLM authorized officer will determine when noxious weed treatments may end based on the operators annual report and BLM spot checks of the area. Treatments would not be required for more than five years after the operation has closed. A survey would be conducted early each summer by the operator. The weeds which must be treated are weeds on the Utah Noxious Weed list (appendix Z). The operator may choose the treatment method, but the method(s) selected must be approved in writing by BLM. Presently, for the species of greatest concern in the project area, treatment with herbicides would be the most effective. Herbicide treatments must be conducted by a pesticide applicator certified by the State of Utah. Herbicides and adjuvants must be used according to all label directions, including safety and environmental protection stipulations. Treatments would be made once or twice a year, depending on species being treated and the treatment being used. Each year the operator would provide BLM with a report describing the preceding years noxious weed survey and treatment activities.
3. At the conclusion of operations, and as a part of final reclamation of the site, any waste dumps created during the course of operations must be pulled back into the quarry floor for use as a sub-base for the subsequent placement of fines, topsoil and compost materials.
4. No hazardous material (other than that listed by the operator in the proposed action) shall be stored or disposed of on-site. Petroleum spills of one-half quart or more will be immediately cleaned up and properly disposed of. For larger spills, the operator must contact the Salt Lake Field Office within 24 hours so that BLM hazardous material clean up policies and procedures are complied with.
5. For complete administrative access to the mine site in order to conduct inspections of the operation and for monitoring purposes, the operator must allow the BLM access to the Browns Canyon Community Pit at all times. This could be accomplished by the operator interlocking his lock with a BLM padlock at the main gate or by some other similar method.

American Stone's Brown Canyon Environmental Assessment
UT-020-2003-0078

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1.0 Introduction

Lon Thomas of American Stone, Inc. has submitted a request for a mineral material sale from split-estate lands in the Brown's Canyon Community Pit area of Summit County, Utah. Mr. Thomas owns the surface estate on the subject lands. The mineral estate is owned by the Federal government and managed by the Salt Lake Field Office. The operator proposes to mine 50,000 cubic yards (120,000 ton equivalent) of material each year over the life of the operation. The operator anticipates that the operation would continue for 15 years. The project area is 11 acres in size. At the present time, the operator is excavating sandstone building stone from private lands south of and adjacent to the split estate lands.

1.1 Need for the Proposed Action

The purpose for preparing this Environmental Assessment (EA) is to evaluate the area where the operator proposes to conduct his mining and crushing operation and to determine what type of mitigation, if any, is required for the operation to proceed.

Consistent with Section 2 of the Mining and Mineral Policy Act of 1970 and Section 102 (a) , (8) and (12) of the Federal Land Policy and Management Act (FLPMA), it is the policy of the Department of the Interior to encourage the development of Federal mineral resources and reclamation of disturbed lands.

1.2 Conformance with BLM Land Use Plan

The proposed action and alternatives conform with the general guidelines of the Park City Management Framework Plan (MFP) of 1975. The MFP made the commitment to dispose of most of the lands within the planning area and did not identify any potential for the development of energy minerals. The MFP encouraged the development of lead, zinc, silver, gold and cadmium resources, however it was silent as it related to salable mineral resources. A plan maintenance decision has been prepared to address the development of these limited salable resources. This decision was completed on June 19 2003.

1.3 Relationship to Statutes, Regulations, or other Plans

The proposed action and alternatives conform with Mineral Material Disposal Regulations at 43 CFR 3600, Utah's Standards for Rangeland Health (1997), Salt Lake District Office (SLDO) Weed EA UT-020-96-24, SLDO Riparian Strategic Plan (1989) and Utah's Non-Point Pollution Management Plan (2000).

1.4 Identification of Issues and Alternatives

The public was notified of the proposed action on May 22, 2003. This notification was provided on the Environmental Bulletin Board located in the Salt Lake Field Office and on the Environmental Notification Bulletin Board at BLM's official Salt Lake Field Office website.

Table 1. Critical Elements of the human environment that have been considered for this environmental assessment (EA) are listed below. Elements that may be affected are further described in this EA. Rationale for those elements that will not be significantly or adversely affected are listed in the table.

NOTE: These tables apply to resources or elements affected by any of the alternatives analyzed in detail

| Critical Element | No Impact | May Impact | Not Present | Rationale |
|-----------------------------------------|-----------|------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Air Quality | X | | | Because of the remote location of the proposed operation, it is not likely that air quality would be degraded by the mining operation. |
| Areas of Critical Environmental Concern | | | X | Resource is not present. |
| Cultural | | | X | A cultural resources inventory was completed on January 23, 2003 by the SWCA Environmental Consultants with no resources located. Cultural resources identified include one isolated flake. A No Effect determination has been made by BLM under the provisions of a Protocol implementing a national Programmatic Agreement with the Utah SHPO. |
| Environmental Justice | | | X | No minority or low income groups would be affected by disproportionately high & adverse human health or environmental effects. |
| Farmlands, Prime or Unique | | | X | Resource is not present. |
| Floodplains & Riparian-Wetland | | | X | The area directly north of the project area, in the Lost Creek drainage could act as a floodplain during heavy rains and/or heavy periods of snow melt. It is not anticipated that this would affect the proposed project area. Resources are not present within the analysis area. |
| Invasive, Non-Native Weed Species | | X | | The invasion and spread of noxious weeds is a possibility due to the number of vehicles that would access and operate within the project area. |

| | | | | |
|------------------------------------------------|---|--|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Native American | | | X | During the preparation of the Environmental Assessment for the original Plan of Operations, no Native American concerns or issues were identified. Native American Religious Concerns. No Native American religious concerns are known for the project area. The claim area falls into the traditional use area of the Eastern Shoshone. The Eastern Shoshone did not identify any issues when notified of the project June 12, 2003. |
| T & E Flora/Fauna | X | | | No officially listed threatened and endangered plant species have been found on public lands within the Salt Lake Field Office. The only Threatened and Endangered Species is the bald eagle which does not inhabit the project area. |
| Waste – Hazardous/Solid | X | | | Because of the operator's use of heavy equipment during mining and milling activities, there is a small potential that fuel or other petroleum products could be spilled onto the surface of the ground. |
| Water Quality/ Surface/Ground | X | | | The operator owns a water right to develop a natural seep and has emplaced protections to prevent any contamination to the groundwater resources from domestic animals, wildlife or human-caused impacts. |
| Wild & Scenic Rivers | | | X | Resource is not present. |
| Wilderness and/or Wilderness Study Areas | | | X | Resource is not present. |

Other Issues and Concerns

Table 2: The resources, uses, and issues that may be affected are described in the Affected Environment section of this EA and are analyzed in the Environmental Consequences section. Those potential issues or resources that would not be affected are also identified in Table 2 and a brief rationale for not considering them further is provided.

| Other Issues/ Resource | No Impact | May Impact | Rationale |
|---------------------------|--------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vegetation | X | | During the course of the proposed action, the operator would remove nearly all of the native vegetation within the project area. The operator's Large Mining Operation Plan with UDOGM provides a list of Pure Live Seed to be used for reclamation purposes. After the operator revegetates the proposed disturbance using this seed mix, there would be no negative impacts resulting from the proposed action. |

| | | | |
|--------|--|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Access | | X | Because the proposed action is on private lands and behind an operator-controlled gate, BLM's administrative access to the site may be limited. Public access to the mine would not be possible. In addition, the main gate is located on lands that the operator leases from another private individual. |
|--------|--|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

1.5 Alternatives Analyzed in Detail

- A. Proposed Action (Alternative A): To analyze the applicant's proposal to mine and excavate mineral materials from split-estate lands.
- B. No Action Alternative (Alternative B): Under Alternative B, the No Action Alternative would consist of not approving the operator's pending request for a negotiated mineral material sale.

2.0 Description of the Alternatives including the Proposed Action

2.1 Alternative A: Proposed Action

The operator has submitted a request for a mineral material sale from split-estate lands in the Brown's Canyon Community Pit area of Summit County, Utah. The project area would be approximately 11 acres in size and would be located approximately 7 miles northeast of Park City, Utah (See Map #1). The operator anticipates that the operation would continue for the next 15 years.

Mining Operation

The operator's proposal is to conduct operations by drilling, blasting and excavating the mineral materials (limestone/dolomite) using an excavator and a ripper. Equipment to be used for the operation would include a bulldozer, wheel loader, track hoe excavator, ripper and crusher. The mined rock would be crushed on-site and sold as an aggregate. The crushed material would then be loaded onto trucks and hauled out. An access road has been proposed which would be 20 foot in width (See Map #2).

Overburden and waste would include a combination of soil and fine rock that overlies the material to be crushed. Waste would include rock material that is not considered to be salable as a crushed product. The operator's submitted map does not show any waste dumps around their proposed excavation, therefore none are anticipated to be created during the course of mining and crushing activities. If any waste dumps are created within the project area, the operator would be required to pull this material back into the excavation as a part of final reclamation.

Mining would occur on a series of flat benches rather than by open-pit methods. The north edge of the disturbance would be "daylighted", with the south and eastern edges

forming a highwall. Each bench would be about 20 feet in height. The final dimension of the excavation would be approximately 700 feet long by about 500 feet long, for a total of 8.03 acres. To facilitate expansion of the mine in the event the operator excavates the material out at a rate sooner than anticipated or requests additional mineral materials beyond the initial 15 year period, this EA would cover the operator's total area of surface ownership, 11.01 acres.

The operator states that the excavation will result in an 80 foot highwall with 20 foot benches, or "lifts" at the conclusion of operations. This is consistent with what is stated in his Large Mining Operation Plan with the Utah Division of Oil, Gas and Mining for adjacent lands to the south of the project area.

The operator proposes to salvage and stockpile the upper 6 inches to 1 foot of topsoil over the project area. He indicates that some areas may yield as much as 40 inches of very cobbly topsoil. This material would be stockpiled in one of 3 topsoil and 1 subsoil stockpiles that are located south of the split estate lands and beyond the boundaries of the community pit. Additional topsoil stockpiles would be established, if needed. Inactive topsoil stockpiles would be revegetated and marked with signs labeled "Topsoil – Do Not Disturb." Active stockpiles would not be marked with signs because it is not possible to add additional materials to the stockpiles without disturbing them. Topsoil stockpiles would be vegetated with the following mixture of pure live seed at the following rate:

| | |
|-----------------------|---------------------|
| Orchardgrass | 0.5 lbs/acre |
| Yellow Sweetclover | 1.0 lbs/acre |
| Small Burnet | 1.0 lbs/acre |
| Thickspike Wheatgrass | 2.0 lbs/acre |
| Crested Wheatgrass | <u>0.5 lbs/acre</u> |
| Total | 5.0 lbs/acre |

Fuel Storage

During operations, the operator would use an existing 350 gallon above-ground diesel fuel tank currently located or used within a secondary containment unit on private lands adjacent to the split estate lands. Other hydrocarbons that may be located within the project area include one barrel of hydraulic oil, one barrel of motor oil, one case of tube grease and one case of starting fluid. These items would be stored near the diesel fuel tank. No processing chemicals would be used during the course of operations. Used oil from servicing vehicles and equipment would be drained into containers and hauled to the operator's stone yard in Salt Lake City, Utah where it would be combined with other used oil from other sources and picked up for recycling.

Diesel, transmission fluid and oil from small spills would be handled according to appropriate regulations. Small spills would be picked up and spread out on the waste dump to allow the contaminants to evaporate from the soil materials for six weeks, then turned over for six more weeks until considered passable. If the spills are too large for

this to be practical, the contaminated soil materials would be scooped up, placed into drums and hauled to an approved disposal site.

Trash, Scrap and Debris

The operator would haul all trash, scrap and debris to the Summit County landfill, as needed. Any of this type of material generated during final reclamation would also be hauled to the same landfill.

Reclamation Plan

The operator does not propose to do any concurrent reclamation during the course of operations. The excavation would be designed so that the overall slope of the highwall at the conclusion of mining would not exceed 45 degrees. At the conclusion of operations, the quarry floors would be ripped, covered with fine material, topsoil and compost, and then revegetated. No drill holes would remain after the material has been mined and the material crushed to its specific size ranges. No leach pads are planned, therefore none would need to be reclaimed.

Waste dumps would be recontoured to a final slope of from 2H:1V to 2.5H:1V. The regraded slopes would be covered with subsoil/fine rock then with a layer of topsoil. Compost would be added and the slopes would be broadcast-seeded with the UDOGM approved list of pure live seed as outlined below:

| Species | pounds per acre |
|--------------------------|-----------------|
| Wyoming big sagebrush | 0.1 |
| Rocky Mountain penstemon | 1.0 |
| Orchardgrass | 2.0 |
| Yellow Sweetclover | 1.0 |
| Forage Kochia | 1.0 |
| Saskatoon Serviceberry | 1.0 |
| Alfalfa | 1.0 |
| Intermediate Wheatgrass | 3.0 |
| Antelope Bitterbrush | 1.0 |
| Small Burnet | 1.0 |
| Thickspike Wheatgrass | 2.0 |
| Bluebunch Wheatgrass | 2.0 |
| Basin Wildrye | <u>1.0</u> |
| Total | 17.1 |

The seed mixture would be Pure Live Seed and would be broadcast during the fall months.

Roads, dump slopes and those areas adjacent to the highwall would be reclaimed using a wheel loader or excavator to pull the material back onto the disturbed ground before revegetation efforts were undertaken. The highwalls themselves would not be reclaimed.

The natural drainage pattern would be re-established to form a stable channel by armoring the channel walls to prevent excessive erosion and downstream sedimentation. The small seasonal waterways would be recontoured and graded with suitable stone to establish drainage with erosion rates comparable to natural erosion.

Topsoil would be spread at a minimum depth of 6 inches deep and amended with five tons per acre of composted manure. Fertilizer would be applied if necessary.

2.2 Alternative B: No Action Alternative

The No Action Alternative would consist of not approving the submitted request for a negotiated mineral material sale. Under this alternative, the operator would not be permitted to extend his existing quarrying operation onto the adjacent Federal mineral estate lands. The No Action Alternative would be the chosen alternative if it was determined that the Proposed Action would cause unnecessary or undue degradation to Public lands. Under the No Action Alternative, the development of a valuable mineral resource would not occur.

3.0 Affected Environment

3.1 General Setting

Geology

The study area lies near the western boundary of the Wasatch Mountains, the westernmost segment of the Rocky Mountains, about 21 miles east of the Wasatch Fault, one of the major structural features of the North American continental plate. The Wasatch Fault forms the western boundary between the stable craton to the east, and the more tectonically active western portion of North America (Hunt, 1982, p. 82).

During the Late Cretaceous, the region now known as the Great Basin was uplifted relative to the Wasatch Mountains, and began to shed sediments eastward into the Cretaceous Interior Seaway and subsequently formed the Colorado Plateau and later Tertiary lake basins. In Late Tertiary time, extension and subsidence in the Great Basin region, in conjunction with uplift of the Wasatch Mountains, reversed the regional topography to its approximate present-day configuration (Hunt, 1982, p. 82).

The Park City region is located on a broad, east-west structural alignment that includes the Uinta Mountains to the east, the Alta-Cottonwood-American Fork mining districts in the center, and the Bingham-Ophir districts in western Utah. Consolidated sedimentary

rocks range in age from Precambrian to Triassic, with the youngest rock units including unconsolidated Quaternary alluvium, glacial moraine material and glacial till. Igneous rocks intruded these sediments and flowed out onto the surface, forming extensive accumulations across the region and within the study area (Wilson, 1959, p. 183).

Lying between the Wasatch and Uinta Mountains is a large, crescent-shaped mass of volcanic rocks called the Keetley Volcanics. These extrusive rocks form a complex assemblage of flows, tuffs and volcanic breccias that are composed chiefly of andesites and rhyodacites. The Keetley Volcanics are Oligocene in age and rest upon an irregular surface of older Pennsylvanian through Early Triassic sedimentary rocks. They were likely extruded quite rapidly into a river valley which once traversed this area (Stokes, 1986, p. 175).

The area of the proposed action was covered by rocks of the Keetley Volcanics, however Recent erosion has exposed Jurassic and Triassic limestone, dolomite and sandstone along the drainage of Lost Creek. These exposed rocks have become the focus of several rock quarrying operations along the Browns Canyon Road, including the operator's existing sandstone quarry.

Climate

The climate in the area is typical of an intermontane environment. The area experiences a wide variation in temperature, ranging from a mean minimum of 6° Fahrenheit in January to 86° Fahrenheit in July. The average annual precipitation is about 20 inches per year (Jeppson, et al, 1968, Figures 12, 18 and 19).

Surface Water Resources

North of the project area about 500 feet is Lost Creek, a perennial stream that flows northeastward into Rockport Reservoir which is located along the Weber River drainage. Water from Lost Creek is currently used for irrigation and domestic livestock watering.

Groundwater Resources

The operator has developed a seep located 1,700 feet north and 300 feet east of the south quarter corner of Section 20. He also has obtained a water right for domestic, irrigation and stock watering purposes. The operator states that he uses the seep to produce household water for a camp located on site and for miscellaneous quarry uses. The seep was developed by excavating about 6 feet into the embankment. A sand point pipe was driven into the embankment to filter and collect water. Water is drained into a tank at the bottom of the excavation. From there, water is pumped to the surface where it is made available for use through a spigot. A water line was also constructed from the tank,

buried about 4 feet deep, to provide household water for the camp. This improvement is permitted through Summit County.

The seep produces about 5 gallons of water per hour. Overflow from the seep drains to the north into a constructed impoundment about 6' X 20' in size at the surface and about 3 feet deep. The water then flows into a second overflow pond about 6' X 15' in size. The second pond is often dry, according to the operator.

The groundwater source is protected by railroad ties which enclose and cover the source pipe and water tank. This was installed to prevent domestic animals and wildlife from entering and contaminating the source.

3.2 Affected Resources

Invasive, Non-Native Species

Summit County, Utah has an active noxious weed control program. Dyers' woad and Russian knapweed are noxious and invasive species of particular concern.

Access

Access to the project area is provided via an existing road that leads northward from the Browns Canyon Road through the mine and mill site area controlled by the operator. Because the proposed action is on private lands and behind an operator-controlled gate, BLM's administrative access to the site may be limited. Public access to the mine would not be possible. In addition, the main gate is located on lands that the operator leases from another private individual.

3.2 Resources Affected Under Other Alternatives

The description of the affected environment for the No Action Alternative would be the same as that for the proposed action.

4.0 Environmental Consequences

4.1 Alternative A: Proposed Action

Invasive, Non-Native Weed Species

Under the proposed action, approximately 11.01 acres of surface disturbance would occur from the proposed quarrying and processing operation. Maintenance of the access road

and the continuous creation of bare soil by quarrying, stockpiling and processing activities would provide the optimum opportunity for the establishment and spread of noxious and invasive weeds. The proposed action could reduce the effectiveness of ongoing noxious weed control programs developed by Summit County, Utah and the BLM if the project area became a dispersal point for noxious weeds to spread onto adjacent Public Lands.

Waste – Hazardous/Solid

Under the proposed action, the operator has stated that small oil spills would be disposed of by digging up the soil and spreading this material on the waste dumps to allow the contaminants to evaporate. Such a proposal could result in degradation of the water quality in the adjacent Lost Creek drainage and cause unnecessary and undue degradation to Public Lands.

Access

Because the main access road to the split estate lands passes through a locked gate on private lands before reaching the project area, full public access to the site is not possible at this time. Although BLM does recognize the need for site security, administrative access must be provided.

4.1.1 Mitigation Measures

1. The proponent shall affect a minimum of vegetative and soil disturbance consistent with practical construction operations.
2. For the entire period of use, and for up to five years post operation, the operator would survey and treat noxious weeds. The BLM authorized officer will determine when noxious weed treatments may end based on the operators annual report and BLM spot checks of the area. Treatments would not be required for more than five years after the operation has closed. A survey would be conducted early each summer by the operator. The weeds which must be treated are weeds on the Utah Noxious Weed list (appendix Z). The operator may choose the treatment method, but the method(s) selected must be approved in writing by BLM. Presently, for the species of greatest concern in the project area, treatment with herbicides would be the most effective. Herbicide treatments must be conducted by a pesticide applicator certified by the State of Utah. Herbicides and adjuvants must be used according to all label directions, including safety and environmental protection stipulations. Treatments would be made once or twice a year, depending on species being treated and the treatment being used. Each year

the operator would provide BLM with a report describing the preceding years noxious weed survey and treatment activities.

3. At the conclusion of operations, and as a part of final reclamation of the site, any waste dumps created during the course of operations must be pulled back into the quarry floor for use as a sub-base for the subsequent placement of fines, topsoil and compost materials.
4. No hazardous material (other than that listed by the operator in the proposed action) shall be stored or disposed of on-site. Petroleum spills of one-half quart or more will be immediately cleaned up and properly disposed of. For larger spills, the operator must contact the Salt Lake Field Office within 24 hours so that BLM hazardous material clean up policies and procedures are complied with.
5. For complete administrative access to the mine site in order to conduct inspections of the operation and for monitoring purposes, the operator must allow the BLM access to the Browns Canyon Community Pit at all times. This could be accomplished by the operator interlocking his lock with a BLM padlock at the main gate or by some other similar method.

4.2 Alternative B: No Action

Under the No Action Alternative, the development and processing of a valuable mineral resource would not occur.

4.3 Residual Impacts

Alternative A: Proposed Action

The residual impacts of the proposed action are that the quarry area within the split estate lands would form a visual scar on the landscape. There would be only minimal residual impacts to when the reclamation measures are implemented.

Alternative B: No Action Alternative

The residual impacts of the No Action Alternative are that the quarry area within the split estate lands would not form a visual scar on the landscape. The development and processing of a valuable mineral resource would not occur.

4.4 Cumulative Impacts

The cumulative impacts of the proposed action, when added to other past, present and proposed future projects in the surrounding area, represent a threshold of acceptable impact. After implementation of reclamation and mitigation measures, this impact would be negligible.

5.0 Consultation and Coordination

5.1 Persons, Groups and Agencies Consulted

Table 3: Consultation and Coordination

| Persons, Agencies and Organizations Consulted | Purpose and Authorities for Consultation or Coordination | Findings and Conclusions |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| U.S. Fish and Wildlife Service, Salt Lake Field Office | Informal Consultation under Section 7 of the Endangered Species Act (16 USC 1531) | FWS agrees with BLM's determination as to not adversely affect listed species. |
| Utah State Historic Preservation Office | Consultation for Undertakings as required by the National Historic Preservation Act (16 USC 470) | A No Effect to Historic Properties determination was arrived at under the provisions of a national Programmatic Memorandum of Agreement between BLM and SHPO as implemented by a state specific protocol for Utah. |
| Utah Department of Homeland Security (Judy Wanabe, Floodplain Mgr.) | Compliance with Executive Order Floodplain Management | Zone C and panel number is 490005 0004 A, dated September 1, 1987. |
| Utah Department of Environmental Quality Division of Water Quality | Riparian Management and conformance with point source pollution | TMDL Program Manager |

5.2 List of Preparers

| Title | Name | Responsible for |
|---------------------------------------------------------------|------------------|--------------------------------------------------------------|
| Team Leader, Geologist, BLM | Michael Ford | Preparation of the EA and mining-related issues. |
| Environmental Specialist, BLM | Alice Stephenson | Plan Conformance, environmental justice, and Quality Control |
| Outdoor Recreation Planner, BLM | Britta Laub | Recreation, Visual Impacts and OHV activities |
| Wildlife Biologist, BLM | Mark Arana | Wildlife issues |
| Riparian Coordinator, BLM | Pam Schuller | Riparian issues |
| Archeologist, BLM | Laird Naylor | Archaeology and Native American Concerns |
| Realty Specialist, BLM | Mike Nelson | Realty issues |
| Rangeland Management Specialist, BLM | Rodd Hardy | T&E Plants |
| Rangeland Management Specialist, BLM | Bill Dragt | Noxious Weed issues. |
| Rangeland Management Specialist and Riparian Coordinator, BLM | Pam Schuller | Riparian-Wetland & Floodplain |

6.0 References Cited

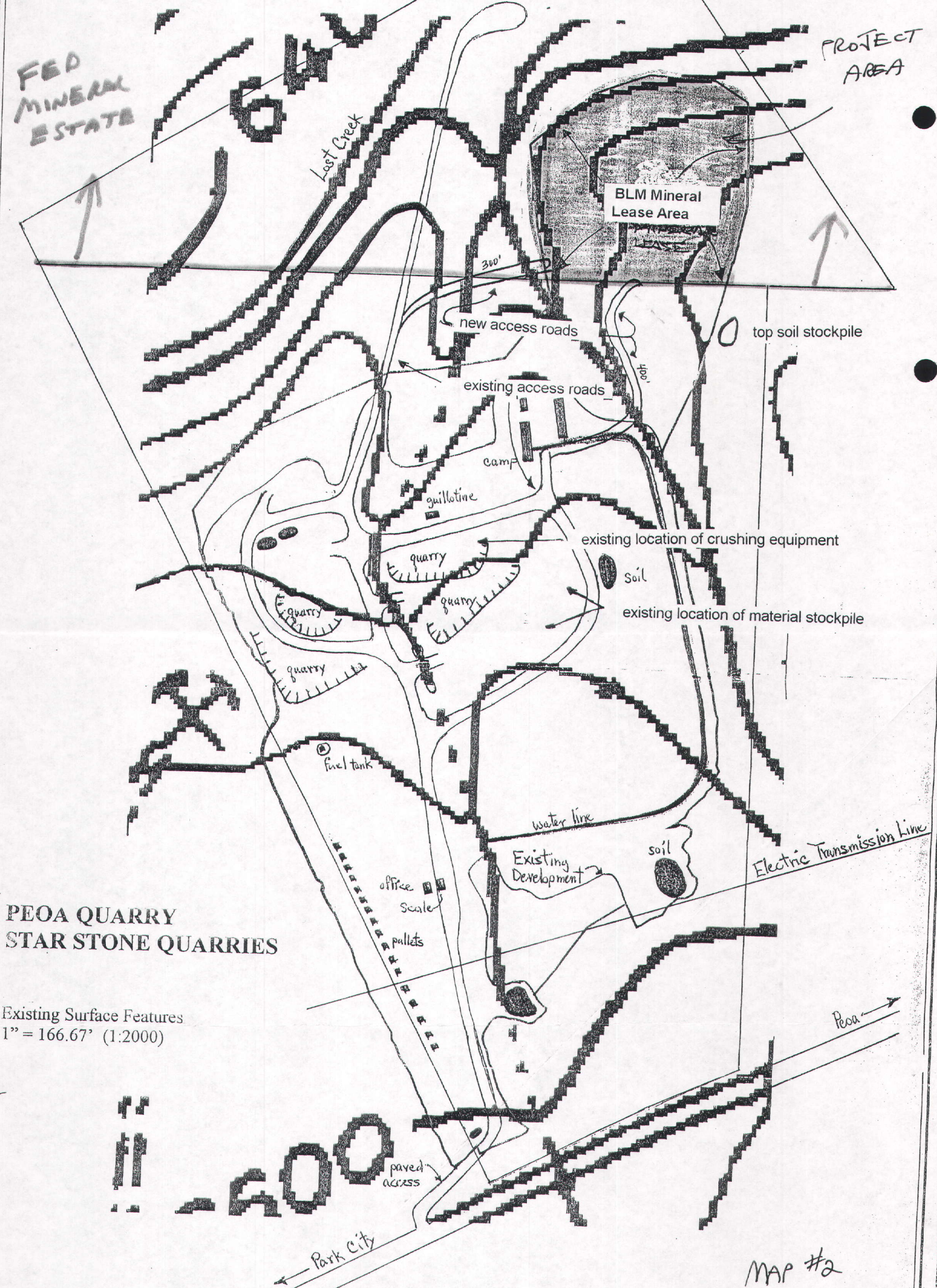
- Garmoe, W.J., and Erickson, A.J., Jr., 1968, Ore deposits of the Park City District: in Park City District, Utah: Guidebook to the Geology of Utah Number 22, p. 30-39.
- Hunt, C.B., 1982, The anomalous transverse canyons of the Wasatch Range: in Overthrust Belt of Utah: Utah Geological Association Publication 10, 1982 Symposium and Field Conference, p. 81-89.
- Jeppson, R.W., Ashcroft, G.L., Huber, A.L., Skogerboe, G.V., and Bagley, J.M., 1968, Hydrologic Atlas of Utah: Utah Department of Natural Resources, 306 p.
- Stokes, W.L., 1986, Geology of Utah: Utah Geological and Mineralogical Survey Occasional Paper Number 6, 280 p.

Wilson, C.L., 1959, Park City Mining District: in Guidebook to the Geology of the Wasatch and Uinta Mountains Transition Area: International Association of Petroleum Geologists, Tenth Annual Field Conference, p. 182-188.

PEOA BLONDE QUARRY - M430012

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S01 E05 Section 20

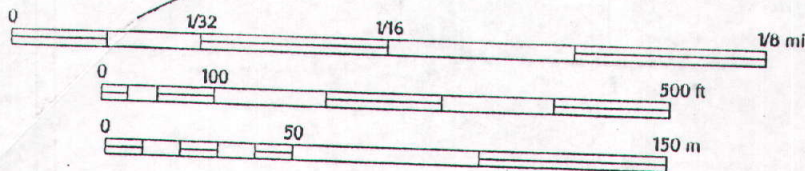


PEOA QUARRY
STAR STONE QUARRIES

Existing Surface Features
1" = 166.67' (1:2000)



State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining



Scale 1:2000 (verify scale)

Map #2